EXHIBIT 36

ADDENDA

ANSI/ASHRAE/ASHE Addendum r to
ANSI/ASHRAE/ASHE Standard 170-2008

Ventilation of Health Care Facilities

Approved by the ASHRAE Standards Committee on June 23, 2012; by the ASHRAE Board of Directors on June 27, 2012; by the American Society for Healthcare Engineering of the American Hospital Association on June 29, 2012; and by the American National Standards Institute on June 28, 2012.

This addendum was approved by a Standing Standard Project Committee (SSPC) for which the Standards Committee has established a documented program for regular publication of addenda or revisions, including procedures for timely, documented, consensus action on requests for change to any part of the standard. The change submittal form, instructions, and deadlines may be obtained in electronic form from the ASHRAE Web site (www.ashrae.org) or in paper form from the Manager of Standards.

The latest edition of an ASHRAE Standard may be purchased on the ASHRAE Web site (www.ashrae.org) or from ASHRAE Customer Service, 1791 Tullie Circle, NE, Atlanta, GA 30329-2305. E-mail: orders@ashrae.org. Fax: 404-321-5478. Telephone: 404-636-8400 (worldwide), or toll free 1-800-527-4723 (for orders in US and Canada). For reprint permission, go to www.ashrae.org/permissions.

 ISSN 1041-2336

American Society for Healthcare Engineering
of the American Hospital Association

Approved American National Standard
www.ansi.org

SPECIAL NOTE

This American National Standard (ANS) is a national voluntary consensus standard developed under the auspices of ASHRAE. *Consensus* is defined by the American National Standards Institute (ANSI), of which ASHRAE is a member and which has approved this standard as an ANS, as "substantial agreement reached by directly and materially affected interest categories. This signifies the concurrence of more than a simple majority, but not necessarily unanimity. Consensus requires that all views and objections be considered, and that an effort be made toward their resolution." Compliance with this standard is voluntary until and unless a legal jurisdiction makes compliance mandatory through legislation.

ASHRAE obtains consensus through participation of its national and international members, associated societies, and public review.

ASHRAE Standards are prepared by a Project Committee appointed specifically for the purpose of writing the Standard. The Project Committee Chair and Vice-Chair must be members of ASHRAE; while other committee members may or may not be ASHRAE members, all must be technically qualified in the subject area of the Standard. Every effort is made to balance the concerned interests on all Project Committees.

The Manager of Standards of ASHRAE should be contacted for:

a. interpretation of the contents of this Standard,
b. participation in the next review of the Standard,
c. offering constructive criticism for improving the Standard, or
d. permission to reprint portions of the Standard.

DISCLAIMER

ASHRAE uses its best efforts to promulgate Standards and Guidelines for the benefit of the public in light of available information and accepted industry practices. However, ASHRAE does not guarantee, certify, or assure the safety or performance of any products, components, or systems tested, installed, or operated in accordance with ASHRAE's Standards or Guidelines or that any tests conducted under its Standards or Guidelines will be nonhazardous or free from risk.

ASHRAE INDUSTRIAL ADVERTISING POLICY ON STANDARDS

ASHRAE Standards and Guidelines are established to assist industry and the public by offering a uniform method of testing for rating purposes, by suggesting safe practices in designing and installing equipment, by providing proper definitions of this equipment, and by providing other information that may serve to guide the industry. The creation of ASHRAE Standards and Guidelines is determined by the need for them, and conformance to them is completely voluntary.

In referring to this Standard or Guideline and in marking of equipment and in advertising, no claim shall be made, either stated or implied, that the product has been approved by ASHRAE.

(This foreword is not part of this standard. It is merely informative and does not contain requirements necessary for conformance to the standard. It has not been processed according to the ANSI requirements for a standard and may contain material that has not been subject to public review or a consensus process. Unresolved objectors on informative material are not offered the right to appeal at ASHRAE or ANSI.)

FOREWORD

The changes included in this addendum primarily are intended to coordinate with the 2010 Guidelines for the Design and Construction of Health Care Facilities*. Specific changes are as follows:*

- *Two additional definitions are added to provide supplemental guidance regarding the meaning of "absorption distance" and "essential accessories."*
- *Change to Section 5 clarifies that "equipment" in this section refers to non-HVAC equipment.*
- *Change to Section 6.1.2 coordinates and clarifies terminology pertaining to boiler capacity and operation.*
- *The specific exception for cooling is not required, since it would be just another component of the owner's facility operation plan. A change to Section 6.1.2.2 deletes the exception.*
- *New Section 6.4.4 minimizes air leakage around and between filters.*
- *Change to Table 6-1 does not require a second filter bank for psychiatric facilities.*
- *Design requirements for cooling towers are relocated from Section 8.2d to a new Section 6.5.4.*
- *Change to Section 6.6 minimizes moisture impingement on ductwork.*
- *New Section 6.7.3 requires coordination between smoke zones and air-handling unit zones to minimize the number of smoke dampers required in a facility.*
- *New Section 6.7.4 improves maintainability of fire and smoke dampers over the life of a facility.*
- *New Section 6.7.5 prevents ductwork from impairing (or being impaired by) special wall construction.*
- *New Section 6.8 minimizes the ability of patients to tamper with HVAC equipment.*
- *Editorial changes to Section 7.1 remove an incorrect footnote reference and redundant requirements.*
- *Exception to Section 7.4.1 allows improved particulate control in operating rooms as indicated by NIH research.*
- *New Section 7.5.2 improves infection control in spaces where infected patients are likely to be coughing.*
- *Text is relocated from note n to note a of Table 7-1.*
- *Example is deleted from note j of Table 7-1.*
- *Redundant text in Section 8.2 is removed.*
- *Intended operation of operating and caesarean delivery rooms in Section A1.1 is clarified.*

Note: *In this addendum, changes to the current standard are indicated in the text by underlining (for additions) and ~~strikethrough~~ (for deletions) unless the instructions specifi-*

Addendum r to Standard 170-2008

[Add the following new definitions to Section 3:]

3. DEFINITIONS

absorption distance: the distance downstream of a humidifier required for all moisture to be absorbed into the airstream.

essential accessories: those components of a system required to allow proper operation of that system that are reasonably subject to mechanical failure (e.g., pumps, fans, control air compressors). Humidifiers, controls, and tanks are not included in this definition.

[To clarify that "equipment" in this section refers to non-HVAC equipment, revise Section 5 as shown.]

5. PLANNING

Owners/managers of health care facilities shall prepare a detailed program that shall include the clinical service expected in each space, the specific user equipment expected to be used in each space, and any special clinical needs for temperature, humidity and pressure control. This program shall be prepared in the planning phase of design.

[To coordinate and clarify terminology pertaining to boiler capacity and operation, revise Section 6.1.2 as shown. Section 6.1.2.1 includes errata published in the current 170-2008 errata sheet available free for download at http://www.ashrae.org/standards-research--technology/standards-errata.]

6.1.2 ~~Reserve~~ Heating and Cooling Sources

6.1.2.1 Provide heat sources and essential accessories in number and arrangement sufficient to accommodate the facility needs (reserve capacity) even when any one of the heat sources or essential accessories is not operating due to a breakdown or routine maintenance. The capacity of the remaining source(s) shall be sufficient to provide for sterilization and dietary purposes and to provide heating for operating, delivery, birthing, labor, recovery, emergency, intensive care, nursery, and inpatient rooms. (For further information, see AIA, 2006, in Bibliography.) Fuel sufficient to support the owner's facility operation plan upon loss of fuel service shall be provided on site.

Exception: Reserve capacity is not required if the ASHRAE 99% heating dry-bulb temperature for the facility is greater than or equal to 25°F (–4°C).

[The specific exception for cooling is not required, since it would be just another component of the owner's facility operation plan. Revise Section 6.1.2.2 as shown.]

6.1.2.2 For central cooling systems greater than 400 tons peak cooling load, the number and arrangement of cooling sources and essential accessories shall be sufficient to support the owner's facility operation plan upon a breakdown or routine maintenance of any one of the cooling sources.

~~**Exception:** Reserve capacity is not required if the ASHRAE 1% Cooling dry bulb temperature is less than or equal to 85 F.~~

[To minimize air leakage around and between filters, add a new Section 6.4.4 as shown. A new Section 6.4.3 was added in Addendum b to 170-2008. To download a free copy of Addendum b to 170-2008 visit the ASHRAE Web site at http://www.ashrae.org/standards-research--technology/standards-addenda.]

6.4.4 Filter Frames. Filter frames shall be durable and proportioned to provide an airtight fit with the enclosing ductwork. All joints between filter segments and enclosing ductwork shall have gaskets or seals to provide a positive seal against air leakage.

[Delete Section 8.2.d and relocate it to a new Section 6.5.4 as shown.]

8.2 Planning for the HVAC Services in a New Facility. Design documents for new construction shall meet the following requirements:

~~d. *Cooling Towers.* Cooling towers shall be located so that drift is directed away from air-handling unit intakes. They shall meet the requirements of Section 6.3.2.~~

6.5.4 Cooling Towers. Cooling towers shall be located so that drift is directed away from air-handling unit intakes. They shall meet the requirements of Section 6.3.2.

[To minimize moisture impingement on ductwork, revise Section 6.6 as shown.]

6.6 Humidifiers. When outdoor humidity and internal moisture sources are not sufficient to meet the requirements of Table 7-1, humidification shall be provided by means of the health-care facility air-handling systems. Locate humidifiers within air-handling units or ductwork to avoid moisture accumulation in downstream components, including filters and insulation. Chemical additives used for steam humidifiers serving health care facilities shall comply with FDA requirements.[1] Reservoir-type water humidifiers or evaporative-pan-type humidifiers shall not be used in ductwork or air-handling units in health care facilities. A humidity sensor shall be provided, located at a suitable distance downstream from the steam injection source. Controls shall be provided to limit duct humidity to a maximum value of 90% RH when the humidifier is operating. Humidifier steam control valves shall be designed so that they remain OFF whenever the air-handling unit is not in operation. Duct takeoffs shall not be located within the humidifier's absorption distance.

[So that a second filter bank is not required for psychiatric facilities, revise Table 6-1 as shown below. Table 6-1 was previously modified in Addendum b to 170-2008. To download a free copy of Addendum b to 170-2008 visit the ASHRAE Web site at http://www.ashrae.org/standards-research--technology/standards-addenda.]

TABLE 6-1 Minimum Filter Efficiencies

Space Designation (According to Function)	Filter Bank Number 1 (MERV)[a]	Filter Bank Number 2 (MERV)[a]
Class B and C surgery; inpatient and ambulatory diagnostic and therapeutic radiology; inpatient delivery and recovery spaces	7	14
Inpatient care, treatment, and diagnosis, and those spaces providing direct service or clean supplies and clean processing (except as noted below); AII (rooms)	7	14
Protective environment (PE) rooms	7	HEPA[c, d]
Laboratories; Class A surgery and associated semi-restricted spaces	13[b]	N/R*
Administrative; bulk storage; soiled holding spaces; food preparation spaces; and laundries	7	N/R*
All other outpatient spaces	7	N/R*
Skilled nursing facilities	7	N/R*
Psychiatric hospitals	7	N/R*

*N/R = no requirement

Note a: The Minimum Efficiency Reporting Value (MERV) is based on the method of testing described in *ANSI/ASHRAE Standard 52.2*, 2007, Method of Testing General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size (see Informative Annex B: Bibliography).

Note b: Additional prefilters may be used to reduce maintenance for filters with efficiencies higher than MERV 7.

Note c: As an alternative, MERV-14 rated filters may be used in Filter Bank No. 2 if a tertiary terminal HEPA filter is provided for these spaces.

Note d: High-Efficiency Particulate Air (HEPA) filters are those filters that remove at least 99.97% of 0.3 micron-sized particles at the rated flow in accordance with the testing methods of IEST RP-CC001.3 (see Informative Annex B, Bibliography).

[To encourage coordination between smoke zones and air-handling-unit zones to minimize the number of smoke dampers required in a facility, add a new Section 6.7.3 as shown.]

6.7.3 Smoke Barriers. Where smoke barriers are required, heating, ventilating, and air-conditioning zones shall be coordinated with compartmentation to minimize ductwork penetrations of fire and smoke barriers.

[To improve maintainability of fire and smoke dampers over the life of a facility, add a new Section 6.7.4 as shown.]

6.7.4 Smoke and Fire Dampers

a. Maintenance access shall be provided at all dampers.
b. All damper locations shall be shown on design drawings.

[To prevent ductwork from impairing (or being impaired by) special wall construction, add a new Section 6.7.5 as shown]

6.7.5 Duct Penetrations. Ducts that penetrate construction intended to protect against x-ray, magnetic, radio frequency interference (RFI), or other radiation shall not impair the effectiveness of the protection, nor shall the treatment of these penetrations impair the ventilation of the space served.

[To minimize the ability of patients to tamper with HVAC equipment, add a new Section 6.8 as shown.]

6.8 Psychiatric Patient Areas. All exposed equipment located within these spaces shall have enclosures with rounded corners and tamper-resistant fasteners.

[Editorial changes to Section 7.1 to remove incorrect footnote reference and redundant requirements are shown below. The remainder of Section 7.1 is unchanged.]

7.1 General Requirements. The following general requirements shall apply for space ventilation:

1. Spaces shall be ventilated according to Table 7-1.

   a. Design of the ventilation system shall provide air movement that is generally from clean to less clean areas. If any form of variable-air-volume or load-shedding system is used for energy conservation, it shall not compromise the pressure balancing relationships or the minimum air changes required by the table. ~~See Table 7-1 note (t) for additional information.~~
   b. The ventilation rates in this table are intended to provide for comfort as well as for asepsis and odor control in areas of a health care facility that directly affect patient care. ~~The air change rates specified are for supply in positive pressure rooms and for exhaust in negative pressure rooms.~~ Ventilation rates for many areas not specified here can be found in ANSI/ASHRAE Standard 62.1 (see Informative Annex B: Bibliography). Where areas with prescribed rates in both Standard 62.1-2007 and Table 7-1 of this standard exist, the higher of the two air change rates shall be used.

[To allow improved particulate control in operating rooms, as indicated by NIH research, add an exception to Section 7.4.1 as shown. Section 7.4.1 was previously modified in Addenda b and l to 170-2008. To download a free copy of Addenda b and l to 170-2008 visit the ASHRAE Web site at http://www.ashrae.org/standards-research--technology/standards-addenda.]

7.4.1 Class B and C Operating Rooms, Operating/Surgical Cystoscopic Rooms, and Caesarean Rooms. These rooms shall be maintained at a positive pressure with respect to all adjoining spaces at all times. A pressure differential shall be maintained at a value of at least +0.01 in. wc (2.5 Pa). Each room shall have individual temperature control. These rooms shall be provided with primary supply diffusers that are designed as follows:

a. The airflow shall be unidirectional, downwards, and the *average velocity* of the diffusers shall be 25 to 35 cfm/ft^2 (127 L/s/m^2 to 178 L/s/m^2). The diffusers shall be concentrated to provide an airflow pattern over the patient and surgical team. (For further information, see Memarzadeh [2002] and Memarzadeh [2004] in Informative Annex B: Bibliography.)
b. The area of the primary supply diffuser array shall extend a minimum of 12 in. (305 mm) beyond the footprint of the surgical table on each side. No more than 30% of the primary supply diffuser array area shall be used for non-diffuser uses such as lights, gas columns, etc. Additional supply diffusers may be required to provide additional ventilation to the operating room to achieve the environmental requirements of Table 7-1 relating to temperature, humidity, etc.

The room shall be provided with at least two low sidewall return or exhaust grilles spaced at opposite corners or as far apart as possible, with the bottom of these grilles installed approximately 8 in. (203 mm) above the floor.

Exception: In addition to the required low return (or exhaust) air grilles, such grilles may be placed high on the walls.

[To improve infection control in spaces where infected patients are likely to be coughing, add a new Section 7.5.2 as shown.]

7.5.2 Bronchoscopy

a. Differential pressure between bronchoscopy procedure and sputum induction rooms and any adjacent spaces that have other functions shall be a minimum of –0.01 in. w.c. (–2.5Pa).
b. Local exhaust shall be provided for sputum collection procedures.

[Relocate text from note n to note a of Table 7-1 as shown. Note a to Table 7-1 was previously modified in Addendum h to

170-2008. Note n to Table 7-1 was previously modified by Addendum a to 170-2008. To download a free copy of Addenda a and/or h to 170-2008 visit the ASHRAE Web site at http://www.ashrae.org/standards-research--technology/standards-addenda.]

Table 7-1 Notes:

a. Except where indicated by a "No" in this column, recirculating room HVAC units (with heating or cooling coils) are acceptable for providing that portion of the minimum total air changes per hour which is permitted by Section 7.1 (Subsection 1.e). Because of the cleaning difficulty and the potential for buildup of contamination, recirculating room units shall not be used in areas marked "No". Recirculating devices with HEPA filters shall be permitted in existing facilities as interim, supplemental environmental controls to meet requirements for the control of airborne infectious agents. The design of either portable or fixed systems should prevent stagnation and short circuiting of airflow. The design of such systems shall also allow for easy access for scheduled preventative maintenance and cleaning.

[…]

n. If pressure monitoring device alarms are installed, allowances shall be made to prevent nuisance alarms. Short term excursions from required pressure relationships shall be allowed while doors are moving or temporarily open. Simple visual methods such as smoke trail, ball-in-tube, or flutterstrip shall be permitted for verification of airflow direction. ~~Recirculating devices with HEPA filters shall be permitted in existing facilities as interim, supplemental environmental controls to meet requirements for the control of airborne infectious agents. The design of either portable or fixed systems should prevent stagnation and short circuiting of airflow. The design of such systems shall also allow for easy access for scheduled preventative maintenance and cleaning.~~

[To eliminate confusing examples, revise note j of Table 7-1 as shown.]

[…]

j. In some areas with potential contamination and/or odor problems, exhaust air shall be discharged directly to the outdoors and not recirculated to other areas. Individual circumstances may require special consideration for air exhausted to the outdoors~~, for example, intensive care units in which patients with pulmonary infection are treated and rooms for burn patients.~~ To satisfy exhaust needs, constant replacement air from the outdoors is necessary when the system is in operation.

[To eliminate redundant text between a and c of Section 8.2, revise as shown.]

8.2 Planning for the HVAC Services in a New Facility. Design documents for new construction shall meet the following requirements:

a. *General Mechanical Equipment Rooms.* The access to mechanical rooms shall be planned to avoid the intrusion of maintenance personnel into surgical and critical care patient spaces.
b. *Mechanical Room Layout.* Mechanical room layout shall include sufficient space for access to equipment for operation, maintenance, and replacement. Floors in mechanical rooms shall be sealed, including sealing around all penetrations, when they are above surgical suites and critical care.
c. *Maintenance/Repair Personnel Access.* Safe and practical means of accessing equipment shall be provided. Clearance is required at all service points to mechanical equipment to allow personnel access and working space. ~~The access to mechanical equipment shall be planned to make it unnecessary for maintenance personnel to intrude into surgical or critical care rooms.~~

[To clarify intended operation of operating and caesarean delivery rooms, revise Section A1.1 as shown.]

A1.1 Operating Rooms

a. Each operating room should be tested for positive pressure semi-annually or on an effective preventative maintenance schedule.
b. When HEPA filters are present within the diffuser of operating rooms, the filter should be replaced based on pressure drop.
c. Operating and caesarean delivery room ventilation systems shall operate at all times, except during maintenance and conditions requiring shutdown by the building's fire alarm system.

[Add the following to Informative Annex B Bibliography.]

FGI, 2010. Facilities Guidelines Institute. Guidelines for Design and Construction of Health Care Facilities. American Society for Healthcare Engineering. Chicago, IL

POLICY STATEMENT DEFINING ASHRAE'S CONCERN FOR THE ENVIRONMENTAL IMPACT OF ITS ACTIVITIES

ASHRAE is concerned with the impact of its members' activities on both the indoor and outdoor environment. ASHRAE's members will strive to minimize any possible deleterious effect on the indoor and outdoor environment of the systems and components in their responsibility while maximizing the beneficial effects these systems provide, consistent with accepted standards and the practical state of the art.

ASHRAE's short-range goal is to ensure that the systems and components within its scope do not impact the indoor and outdoor environment to a greater extent than specified by the standards and guidelines as established by itself and other responsible bodies.

As an ongoing goal, ASHRAE will, through its Standards Committee and extensive technical committee structure, continue to generate up-to-date standards and guidelines where appropriate and adopt, recommend, and promote those new and revised standards developed by other responsible organizations.

Through its *Handbook*, appropriate chapters will contain up-to-date standards and design considerations as the material is systematically revised.

ASHRAE will take the lead with respect to dissemination of environmental information of its primary interest and will seek out and disseminate information from other responsible organizations that is pertinent, as guides to updating standards and guidelines.

The effects of the design and selection of equipment and systems will be considered within the scope of the system's intended use and expected misuse. The disposal of hazardous materials, if any, will also be considered.

ASHRAE's primary concern for environmental impact will be at the site where equipment within ASHRAE's scope operates. However, energy source selection and the possible environmental impact due to the energy source and energy transportation will be considered where possible. Recommendations concerning energy source selection should be made by its members.